biomass assessment studies in 12 Talukas of Gujarat, namely, Vyara, Dholka, Gondal, Ch. Udaipur, Pavi Jetpur, Bhuj, Limdi, Jhagadia, Dev Gadh Baria, Deesa, Vav and Dangs. The studies have indicated surplus availability of biomass comprising agricultural residues, agro-processing wastes, forestry residues, etc., varying from 50,000 to 2,50,000 tonnes per annum. This could support biomass power projects of 2-10 MW capacity in each of these talukas. Such studies will be undertaken during 1998-99 in five more talukas of the State.

(c) The Central Government provides capital subsidy, interest subsidy, fiscal incentives and soft loans from Indian Renewable Energy Development Agency Ltd. (IREDA), for renewable energy projects in the country, including Gujarat. Such assistance is available for biogas plants; improved chulhas; solar photovoltaic devices and systems; biomass gasifiers; solar water and air heating systems; and, grid-connected, as well as decentralised power generation projects, based on solar energy, wind energy, small hydro and biomass. Resource assessment studies and surveys are being supported to identify potential areas for such projects. The State policy for renewable energy projects has expired on 31st March, 1998.

National Dung Policy

1742. SHRI GOVINDRAO ADIK: Will the PRIME MINISTER be pleased to state:

(a) whether Government are considering to formulate National Dung Policy to harness optimum utilisation of dung potential to meet growing rural energy requirement;

(b) the details of investment made in harnessing energy potential of bio-gas so far and results achieved thereunder;

(c) the significant achievements made and areas of concern noticed and correction proposed to be carried out, State-wise; and

(d) whether Government are working on a Comprehensive National Dung Policy beyond 2000 AD; if so, the details thereof alongwith State-wise breakup?

THE MINISTER OF STATE IN THE MINISTRY OF RAILWAYS, PARLIAMENTARY AFFAIRS AND PLANNING AND PROGRAMME IMPLEMENTATION (SHRI RAM NAIK): (a) No, Sir. However, the Government has been promoting setting up of biogas plants in all States and Union Territories to harness the cattle-dung potential for meeting the growing rural energy requirements.

(b) An estimated total investment of about Rs. 2800 crore, including Central financial assistance of about Rs. 895 crore sanctioned under National Project on Biogas Development (NPBD) and Community, Institutional and Night-soil based Biogas Plants (CBP/IBP/NBP) Programme has been made for installing a cumulative total of over 27.13 lakh family type and 2360 large sized biogas plants in the country.

(c) State-wise total number of biogas plants set up so far is given in the Statement (*see* below). These plants are estimated to generate biogas equivalent to saving of about 86 lakh tonnes of fuelwood per year. Besides, about 410 lakh tonnes of enriched manure is also produced per year. Two important areas of concern are low production of biogas during winter months and inadequate maintenance facilities at village level. To overcome these problems, the Ministry of Non-Conventional Energy Sources has initiated research on improving the biogas production at low temperatures in four institutions during the last two years and has been involving a large number of entrepreneurs and non-governmental organisations in the construction of biogas plants on a turn-key basis with first three years' free maintenance warranty.

(d) No, Sir. However, the physical targets proposed for setting up of biogas

plants during the Ninth Five Year Plan period (1997-98 to 2001-02 A.D.) are 7.5 lakh family type and 800 community, institutional and night-soil based biogas plants, with a total plan outlay of Rs. 290.00 crore. The question of State-wise break up of the targets for the year beyond 2000 A.D., does not arise because the targets are worked out on an annual basis.

Statement

Number of family type and community, institutional and night-soil based biogas plants (CBP/IBP/NBP) installed in the country up to 1997-98 under the National Project on Biogas Development and CBP/IBP/NBP Programme

State/UT	Number of plants set-up	
	Family Type Plants	Community, Institutional and Night-soil based Plants
Andhra Pradesh	237140	101
Assam	29026	2
Bihar	103973	26
Gujarat	314078	131
Goa	2847	18
Haryana	35016	27
Himachal Pradesh	40688	4
Jammu & Kashmir	1653	4
Karnataka	234683	39
Kerala	53691	9
Madhya Pradesh	151070	116
Maharashtra	613040	339
Orissa	145470	33
Punjab	43290	432
Rajasthan	63051	52
Tamilnadu	192185	219
Uttar Pradesh	310467	741
West Bengal	132634	28
Others	9069	41
TOTAL	2713250	2362

Power Generation from Renewable Energy Sources

1743. SHRI AHMED PATEL: Will the PRIME MINISTER be pleased to state:

(a) the total number of commercial projects of renewable energy sources being implemented in Gujarat by private sector participation as on date;

(b) the district-wise details thereof; and

(c) what incentives are being given to the State for participating in generation of power from renewable energy sources by Central and State Government?

THE MINISTER OF STATE IN THE MINISTRY OF RAILWAYS, PARLIAMENTARY AFFAIRS AND PLANNING AND PROGRAMME IMPLEMENTATION (SHRI RAM NAIK): (a) An aggregate commercial wind power capacity of 150 MW has been established by 151 private investors in the State of Gujarat.